AutoCAD®: Drawing and Modeling
Summer Training (Four Weeks)

Syllabus

- ***Getting Started with AutoCAD:*** Starting AutoCAD, AutoCAD's Screen Layout, Working with Commands, Opening an Existing Drawing File, Saving Your Work, AutoCAD's Cartesian , Workspace.
- ***Basic Drawing & Editing Commands:*** Drawing Lines, Erasing Objects, Drawing Lines with Polar Tracking, Drawing Rectangles, Drawing Circles, Viewing Your Drawing, Undoing and Redoing Actions.
- ***Drawing Precision in AutoCAD:*** Using Object Snap, Object Snap Overrides, Polar Tracking Settings, Object Snap Tracking, Drawing with SNAP and GRID.
- ***Making Changes in Your Drawing:*** Selecting Objects for Editing, Moving Objects, Copying Objects, Rotating Objects, Scaling Objects, Mirroring Objects, Editing Objects with Grips.
- ***Organizing Your Drawing with Layers:*** Creating New Drawings With Templates, Concept of Layers.
- ***Advanced Object Types:*** Drawing Arcs, Drawing Polylines, Editing Polylines, Drawing Polygons, Drawing Ellipses.
- ***Getting Information From Your Drawing:*** Measuring Objects, Working with Properties.
- ***Advanced Editing Commands:*** Trimming and Extending, Stretching Objects, Creating Fillets and Chamfers, Offsetting Objects, Creating Arrays of Objects.
- ***Text:*** Working with Annotations, Adding Text in a Drawing, Modifying Multiline Text, Formatting Multiline Text.
- ***Hatching:*** Hatching.
- ***Adding Dimensions:*** Dimensioning Concepts, Adding Linear Dimensions, Adding Radial and Angular Dimensions, Editing Dimensions, Adding Notes to Your Drawing.
- ***Creating Blocks:*** Creating Blocks, Editing Blocks, Removing Unused Elements.
- ***Inserting Blocks:*** What are Blocks?, Inserting Blocks from Tool Palettes, Inserting Blocks using Insert.
- ***Annotation Styles:*** Creating Text Styles, Creating Dimension Styles.
- ***Advanced Layouts:*** Creating and Using Named Views, Creating Additional Viewports, Layer Overrides in Viewports.
- **Other Topics:** Creating Model Space Viewports, Creating Boundaries, Working with Regions.
- ***Setting Up a Layout:*** Printing Concepts, Creating Viewports, Setting up Layouts, Guidelines for Layouts.
- ***Introduction to 3D:*** Overview, Types of 3D Models, Navigating and Displaying 3D Models, Orbiting Your 3D Model, Changing the Model Display, Setting Viewport Display.
- ***Creating Solid Primitives:*** About Solid Primitive, Creating a Solid Box, Creating a Solid Sphere, Creating a Solid Cylinder, Creating a Solid Cone, Creating a Solid Wedge, Creating a Solid Torus, Creating a Solid Pyramid.
- ***Creating Models from 2D Profiles:*** Creating a Model Using the Planar Surface Command, Creating a Model Using the Polysolid Command, Creating a Model Using the Extrude Command, Creating a Model Using the Presspull Command, Creating a Model Using the Revolve Command, Creating a Helical Path, Creating a Model Using the Sweep Command, Creating a Model Using the Loft Command.
- ***Creating Composite Solids:*** About Composite Solids, Creating Solids Using Union, Creating Solids Using Subtract, Creating Solids Using Intersect.
- ***Adding Detail to Your Solid Models:*** Filleting Solid Models, Chamfering Solid Models, Slicing a Solid Model.
- ***Converting Objects:*** About Converting 2D Objects to Solids or Surfaces, Converting to Surfaces, Converting to Solids, About Thickening Surfaces into Solids, Thickening Surfaces to Solids.
- ***Editing Solid Models:*** About Solid History and Editing Methods, About Grip Editing Solid Models, Extruding Faces, Moving Faces, Offsetting Faces, Deleting Faces, Rotating Faces, Tapering Faces, Creating a Shell, Imprinting Edges, Separating Solids.
- ***Extracting Geometry from Solid Models:*** Copying Faces, Copying Edges, Extracting All Model Edges, Exploding 3D Models.
- ***Changing the Model Position:*** Moving in 3D, Aligning in 3D, Rotating in 3D.
- ***Using Materials***
- ***Rendering***